



**PROCEEDINGS OF THE
MARINE TRANSPORTATION SYSTEM (MTS)
RESEARCH AND TECHNOLOGY
CONFERENCE**

**Washington, DC
November 14-16, 2001**

PREFACE

ACKNOWLEDGEMENT

I. OPENING SESSION

Welcome from the Conference Sponsor, Interagency Committee for the MTS

Rear Admiral Paul Pluta
United States Coast Guard
Chairman of the Interagency Committee for the MTS

Keynote Address “The Unique Challenges of Maritime Security”

Admiral James M. Loy
Commandant, United States Coast Guard

Welcome and Comments from the MTS National Advisory Council

[Introduction by Ray Barberesi, MARAD]
Captain Michael Watson
President, American Pilots’ Association

Welcome and Address from the Conference Host, U.S. Army Corps of Engineers

Address “Overview of Current Corps of Engineers MTS Activities”

[Introduction by Barry Holliday, USACE]
Brigadier General Robert Griffin
Director of Civil Works
United States Army Corps of Engineers

Organization of the Conference

Bruce Parker
National Ocean Service, NOAA
Chair, R&T Subcommittee of the ICMTS

II. EXPERT PANELS

Summary for Panel 1 – Security I

Transcripts

Moderator:	Joe Cox	President, U.S. Chamber of Shipping
Coordinator:	Jean Godwin	American Association of Port Authorities
Panelists:	Edward V. Badolato	CMS Inc. and National Cargo Security Council
	CDR Stephen Flynn	Council on Foreign Affairs and the U.S. Coast Guard Academy
	Kim Petersen	CEO, Sea Secure, Inc. and Executive Director, Maritime Security Council

Presentations

Edward V. Badolato	CMS Inc. and National Cargo Security Council
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Summary for Panel 2 – Port Capacity

Transcripts

Moderator:	Rex Edwards	Transportation Consultant
Organizer:	Joedy Cambridge	TRB
Panelists:	Jim Brennan	Norbridge Consulting
	Asaf Ashar	National Ports and Waterways Institute, University of New Orleans
	Lauren Kotas	Canaveral Port Authority and AAPA
	James McCarville	Port of Pittsburgh

Presentations:

Asaf Ashar	National Ports and Waterways Institute, University of New Orleans
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Summary for Panel 3 – Security II

Transcripts:

Moderator:	Anthony Regalbuto	U.S. Coast Guard
Coordinator:	Ric Walker	U.S. Coast Guard Research and Development Center
Panelists:	John McGowan	Executive Director, Enforcement Planning, US Customs Service
	Keith Seaman	Chief of Concepts and Technology, U.S. TRANSCOM
	Carl Trovato	Director of Operations, Philadelphia Regional Port Authority
	John R. LaCapra	President, Florida Ports Council
	John J. Lynch	Special Assistant for Force Protection, NAVFAC, U.S. Navy
	Raymond Barberesi	Director, Office of Ports and Domestic Shipping, Maritime Administration

Presentations:

John McGowan	Executive Director, Enforcement Planning, US Customs Service
John J. Lynch	Special Assistant for Force Protection, NAVFAC, U.S. Navy

Summary for Panel 4 – Intelligent Marine Transportation Systems

Transcripts:

Moderator:	Jon Helmick	U.S. Merchant Marine Academy
Coordinator:	Alex Landsburg	Maritime Administration
Panelists:	Henry Marcus	Massachusetts Institute of Technology
	Anne Aylward	EG&G Technical Services at the Volpe Center
	Sandra Jean Borden	PAWSS, U.S. Coast Guard
	Duncan Wright	CSX Lines

Presentations:

Jon Helmick	U.S. Merchant Marine Academy
Henry Marcus	Massachusetts Institute of Technology
Anne Aylward	EG&G Technical Services at the Volpe Center
Sandra Jean Borden	PAWSS, U.S. Coast Guard

Abstracts:

Jon Helmick	U.S. Merchant Marine Academy
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Summary for Panel 5 – Coastwise Transportation

Transcripts:

Moderator:	Paul Bea	Port Authority of New York and New Jersey
Coordinator:	Tony Furst	Department of Transportation
Panelists:	Bill Ellis	Port Authority of New York and New Jersey
	Anatoly Hochstein	National Institute of Ports and Waterways
	John Ricklefs	Moffatt Nichols
	Marc Stanley	Bollinger/Incat
	James Wang	Greater Bridgeport Regional Planning Authority

Presentations:

James Wang	Greater Bridgeport Regional Planning Authority
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Summary for Panel 6 – MTS User Needs

Transcripts:

Moderator:	Jeff High	U.S. Coast Guard
Coordinator:	Bruce Parker	National Ocean Service, NOAA
Panelists:	Ed Mortimer	U.S. Chamber of Commerce
	Barry Holliday	U.S. Army Corps of Engineers
	Peter Lehman	South Carolina State Ports Authority and AAPA
	Leo Penne	American Association of State Highway and Transportation
Officials	Mike Watson	American Pilots' Association
	Chuck Carroll	National Association of Waterfront Employees
	Jonathan Benner	INTERTANKO
	Ed Welch	Passenger Vessel Association

Presentations:

Glenn Ashe	American Bureau of Shipping
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III. CHALLENGE SPEAKERS

“MTS Capacity Problems: Real or Perceived?”

Transcript

Presentation

M. John Vickerman

Principal, TranSystems Corporation

“Maritime Data for the 21st Century”

[Introduction by Deborah Johnson, BTS]

Dr. Ashish Sen

Director, Bureau of Transportation Statistics

“Linking the Pieces: Developing an Integrated and Secure North American Freight Transport System”

[Introduction by Paul Bea, Port Authority of New York and New Jersey]

Harry Caldwell

Chief of Intermodal Freight, Federal Highway Administration

IV. TECHNICAL SESSIONS.

Summary for Session 1 – Future Fleet Predictive Capability

Transcripts:			
Chairs:	Mark Pointon	U.S. Army Corps of Engineers	
	Ian Mathis	U.S. Army Corps of Engineers	
Organizer:	Philip Thorpe	U.S. Army Corps of Engineers	
Speakers:	Ben Hackett	DRI*WEFA	International Trade Forecasting
	Mike Sclar	Michael Sclar Associates	Future U.S. Vessel Calls
	Phillip Thorpe	U.S. Army Corps of Engineers	Future U.S. Vessel Constraints
	Paul Pollinger	Pollinger and Company	Ocean/River Hull Design Concept

Presentations:

Summary for Session 2 – Navigation and Information Systems I

Transcripts:			
Chair:	Rudy Peschel	Saab Transponder Tech	
Coordinator:	Athar Pirzada	U.S. Coast Guard	
Panelists:	Marcus Nyberg	Saab Transponder Tech	Development and Implementation of Coastal AIS Network Concepts, with MTS Implications
	Jay Spalding	U.S. Coast Guard	Intelligent Waterway Systems
	Mike Brown	National Ocean Service	The United States ENC Program of the Coast Survey
	Kathryn Bosley	National Ocean Service	Prospect for P.O.R.T.S. TM
	Vladimir Trbojevic	EQE International Ltd.	Linking Risk Assessment of Marine Operations to Safety Management in Ports

Presentations:

Rudy Peschel	Saab Transponder Tech
Marcus Nyberg	Saab Transponder Tech
Jay Spalding	U.S. Coast Guard
Mike Brown	National Ocean Service

Abstracts:

Marcus Nyberg	Saab Transponder Tech
Jay Spalding	U.S. Coast Guard
Mike Brown	National Ocean Service
Kathryn Bosley	National Ocean Service
Vladimir Trbojevic	EQE International Ltd.

Summary for Session 3 – Regional Sediment Management I

No transcripts are available for this session.

Chairs:	Barry Holliday	U.S. Army Corps of Engineers	
	William McAnally	U.S. Army Corps of Engineers	
Organizer:	William McAnally	U.S. Army Corps of Engineers	
Speakers:	William McAnally	U.S. Army Corps of Engineers	The Corps' Regional Sediment Management Research Program
	Richard Gorini	J. Simmons Group	Regional Management – Ports Perspective
	R. Bruce Taylor	Taylor Engineering	RSM Experiences and Issues – Vicinity Ponce de Leon Inlet, Florida
	Ashish Mehta	University of Florida	Fine Sediment Dynamics at a Regional Scale
	Simeon Hahn	National Ocean Service	Support for Decision Making in Evaluating Proposed Dredging Projects

Presentations:

R. Bruce Taylor	Taylor Engineering
Ashish Mehta	University of Florida
Simeon Hahn	National Ocean Service

Summary for Session 4 – Intermodal Freight Network System

Transcripts:

Chairs:	Robert Bouchard	Maritime Administration	
	Richard Walker	Maritime Administration	
Panelists:	Blair Garcia	TranSystems Corporation	Efficient Marine-Rail Interface
	Bill Ellis	Port Authority of New York and New Jersey	Port Intermodal Distribution Network, New Jersey
	Peter Franke	Noell Crane (Germany)	Inland Agile Port
	Mike Crock	Noell Crane	
	William Goetz	CSX Lines	Intermodal Economics and Port Innovation

Presentations:

Blair Garcia	TranSystems Corporation
Bill Ellis	Port Authority of New York and New Jersey
Peter Franke	Noell Crane (Germany)
William Goetz	CSX Lines

Summary for Session 5 – Levels of Service

No transcripts are available for this session.

Chair:	Pat Mutschler	U.S. Army Corps of Engineers	
Organizer:	Sandra Knight	U.S. Army Corps of Engineers	
Speakers:	Ray Derr	Federal Highway Admin	Highway Perspective
	David Grier	U.S. Army Corps of Engineers	Capacity of Inland Waterways
	Jack Langowski	Planning and Management Consultants, Ltd.	Corps LOS Perspective
	Greg Brubeck	Port of Corpus Christi	Port Perspective
	Mike Sollosi	U.S. Coast Guard	Coast Guard Perspective

Presentations:

Greg Brubeck	Port of Corpus Christi
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Summary for Session 6 – Ballast Water Treatment Technologies

Transcripts:

Chairs:	Gylnis Hill	Environmental Protection Agency	
	Dorn Carlson	NOAA	
	Rich Everett	U.S. Coast Guard	
Organizers:	Craig Vogt	Environmental Protection Agency	
	Dorn Carlson	NOAA	
Speakers:	Allegra Cangelosi	Northeast/Midwest Institute	Shipboard Ballast Water Treatment Tests
	George Wright	Princess Cruise Lines	Ballast Water Treatment on a Cruise Ship
	David Wright	University of Maryland	Ballast Water Treatment on MV Cape May
	Bill Stubblefield	ENSR Corporation	Ballast Water Treatment on the Tonsina
	Ray Frederick	EPA	Technology Verification for Ballast Water

Presentations:

Allegra Cangelosi	Northeast/Midwest Institute
George Wright	Princess Cruise Lines
Bill Stubblefield	ENSR Corporation
Ray Frederick	Environmental Protection Agency

Summary for Session 7 – ITS Technology and Information

Transcripts:

Chairs:	Robert Bouchard	Maritime Administration	
	Richard Walker	Maritime Administration	
Panelists:	John Lutz	Transcentric Corporation	Regional Information Sharing Systems – Internet Based
	Terry Gibson	Science Applications International Corporation	Optical Scanning Technology for Marine Gate Systems
	Vic Orphan	Science Applications International Corporation	X-Ray Technology for Container Inspections
	Karen Tobia	Port Authority of New York and New Jersey	Freight Information Real-Time System for Transport

Presentations:

Karen Tobia	Port Authority of New York and New Jersey
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Summary for Session 8 – Environmental Issues

No transcripts are available for this session.

Chair:	Jean Snider	National Ocean Service, NOAA	
Coordinator:	Richard Legatski	Legislative Affairs, NOAA	
Speakers:	Malcolm Spaulding	University of Rhode Island	TRANSMAP: An Integrated, Real-Time Environmental Monitoring and Forecasting System For Highways and Waterways in Rhode Island
	Donna Turgeon	National Ocean Service	Hawaii Pilot Project to Build a National Early Warning System for Invasive Species
	Tom Chase	AAPA	Key Environmental Issues in a Sound MTS Strategy
	Michael Bruno	Stevens Institute of Technology	Addressing the Contaminated Sediment Problem in the Port of New York and New Jersey: Preliminary Results

Presentations:

Malcolm Spaulding	University of Rhode Island
Donna Turgeon	National Ocean Service, NOAA
Michael Bruno	Stevens Institute of Technology

Abstracts:

Malcolm Spaulding	University of Rhode Island
Donna Turgeon	National Ocean Service, NOAA

Summary for Session 9 – Regional Sediment Management II

No transcripts are available for this session.

Chairs:	Barry Holliday	U.S. Army Corps of Engineers	
	William McAnally	U.S. Army Corps of Engineers	
Organizer:	William McAnally	U.S. Army Corps of Engineers	
Speakers:	Jeff Haines	U.S. Geological Survey	Understanding the Geological Framework and Processes of Coastal Sedimentation Systems
	Robert Carousel	EPA	Candidate Eutrophication Models for TMDL Analyses in Support of the Clean Water Act
	Tonja Koob	U.S. Army Corps of Engineers	Atchafalaya River and Mississippi River Gulf Outlet – Navigation Issues
	John Remus	U.S. Army Corps of Engineers	Maintaining Reliable Navigation Channels While Altering Alluvial Processes
	William McAnally	U.S. Army Corps of Engineers	Tying It All Together
Presentations:			
	Robert Carousel	Environmental Protection Agency	

Summary for Session 10 – Ferries

Transcripts:

Chair:	Richard Lolic	Maritime Administration	
Coordinator:	Michael Gordon	Maritime Administration	
Panelists:	James Bamberger	Maritime Institute of Technology	Vessel Wake and Other Issues Facing Ferry Operators
	Clayton Cook, Jr.	Management and Transportation Associates	Challenge and Opportunities in Financing Ferry Boats and Operations
	Bill Burns	Mangia Onda Company	Ferry Vessel Design Which Creates Little Or No Wake
	Roberta Weisbrod	Partnership for Sustainable Ports	Pre and Post 9/11 Impact on Ferry Transportation in the New York Area and Technological Needs from the Customer's View

Presentations:

Clayton Cook, Jr.	Management and Transportation Associates
Bill Burns	Mangia Onda Company

Abstracts:

Clayton Cook, Jr.	Management and Transportation Associates
Roberta Weisbrod	Partnership for Sustainable Ports

Summary for Session 11 – Container on Barge: Problems, Practical and Political

No transcripts are available for this session.

Chair:	Bill Ellis	Port Authority of New York and New Jersey	
Organizer:	James McCarville	Port of Pittsburgh	
Speakers:	Robert Holliday	U.S. Customs Service	Stream-of-Commerce Container Study
	James Corbett	University of Delaware	Calculating the Public Air Quality Benefits of Private Container on Barge Movements
	Bill Jordan	Texas National Resource Conservation Commission	How One State Looks at Air Quality and Maritime/Container on Barge Issues
	William Edwing	Osprey Lines	Operational Issues Initiating a Container on Barge Service
	James McCarville	Port of Pittsburgh	Discussion: Devising a Research Strategy for Container on Barge

Presentations:

Bill Jordan	Texas National Resource Conservation Commission
James McCarville	Port of Pittsburgh

Summary for Session 12 – Navigation and Information Systems II

No transcript is available for this session.

Chair:	Andrew Silver	David Taylor Model Basin, Carderock, U.S. Navy	
Coordinator:	Siraj Khan	U.S. Customs Service	
Speakers:	Larry Daggett	Waterway Simulation Technology, Inc.	Ship Performance Measurements – Houston Ship Channel, Galveston Bay, Texas
	Andrew Silver	U.S. Navy	Predictive Tools for Underkeel Clearance
	Warren Heerlien	U.S. Coast Guard R&D Center	Next Generation Navigation Aids (NGEN NAV)
	James Tindall	MariTEL	Integrated Marine Communications
	Charles Armstrong	U.S. Customs Service	ACE Benefits – Business and Technology

Presentations:

Larry Daggett	Waterway Simulation Technology, Inc.
Andrew Silver	U.S. Navy
James Tindall	MariTEL

Abstract:

James Tindall	MariTEL
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V. POSTERS

Bruce Parker	National Ocean Service, NOAA	Oceanographic Model Forecast Systems:Economic Benefits for the Marine Transportation System
Ric Walker Kathleen Shea	U.S. Coast Guard R&D Center U.S. Coast Guard R&D Center	Navigational Aids User Survey
Richard Schmalz	National Ocean Service, NOAA	Houston Ship Channel Hydrodynamics: Measurement and Modeling Perspective
Bob Pawlowski	Thales GeoSolutions	Application of Multi-beam Echosounder
Jerry Wilson	Thales GeoSolutions	Systems to Habitat Delineation

APPENDICES

- A. Conference Agenda and Technical Sessions**
- B. Conference Program at a Glance**
- C. Conference Planning and Committee Membership**
- D. List of Participants**